UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,147	03/25/2004	Anson Horton	MS302712.1/MSFTP579US	7392

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EXAMINER
LEE, MARINA

ART UNIT	PAPER NUMBER
2192	

NOTIFICATION DATE	DELIVERY MODE
11/05/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/809,147	HORTON ET AL.
	Examiner	Art Unit	
	Marina Lee	2192	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *25 March 2004*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-26* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-26* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *25 March 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date *July 02, 2004*.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the application filed March 25, 2004.

2.   Claims 1-26 are pending and have been examined.

Oath/Declaration

3.   The Office acknowledges receipt of the oath/declaration filed on March 25, 2004.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claims 1-20 and 24 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

As to claim 1, line 1, recites "An attributed debugging system comprising:

a debugger....an expression evaluator..." does not comprise a readable medium

or any computer components (no physical transformation) in order to realize the

functionality of the system. The "system" without such a computer system and /or

computer readable storage medium (e.g., the term "system" ....are intended to refer

to...software) – *see specification [0028]: 1-8* – may be broadly interpreted as data

structures representing descriptive material per ser or computer programming

representing computer listing per se – functional descriptive material under 35 USC §

101. See MPEP 2106.01(I).

Claims 1-20 recite the limitations that do not cure the deficiency of the base

claim 1, which regarding to the rejection of non-statutory under 35 USC 101. Therefore,

they are also rejected for not meeting the statutory under 35USC 101. See MPEP

2106.01(I).

As to claim 24, line 1, recites, " A <u>data packet</u> transmitted… the data package

comprising: a field that store….", does not comprise a readable medium or computer

component (no physical transformation) in order to realize the functionality of the data

packet. The "data packet" without such a computer system and /or computer readable

storage medium may be broadly interpreted as data structures representing descriptive

material per se or computer programming representing computer listing per se –

functional descriptive material under 35 USC § 101. –*See MPEP 2106.01(I)*.

Moreover, claim 24, here, as presently drafted merely amount to a non-functional

descriptive material as there is no "act" actually being performed. –*See MPEP

2106.01(II)*.

Double Patenting

6.   The nonstatutory double patenting rejection is based on a judicially created

doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent

and to prevent possible harassment by multiple assignees.   A nonstatutory

obviousness-type double patenting rejection is appropriate where the conflicting claims

are not identical, but at least one examined application claim is not patentably distinct

from the reference claim(s) because the examined application claim is either anticipated

by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29

USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

F.2d 438, 164 USPQ 619 (CCPA 1970); and In *re Thorington*, 418 F.2d 528, 163 USPQ

644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d)

may be used to overcome an actual or provisional rejection based on a nonstatutory

double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of

activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a

terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with

37 CFR 3.73(b).

7.   Claims 1-4 and 25 provisionally rejected on the ground of nonstatutory
obviousness-type double patenting as being unpatentable over claim1-4 and 21
respectively of copending Application No. 10/808,905. The conflicting claims are very
much identical, based on the comparison listed in the following table:

Current Application (10/809,147) US 2005/0216893 A1	Co-pending application (10/808,905) US 2005/0216892 A1
Claim1: An <u>attributed debugging system</u> comprising: a debugger that facilitates debugging of a computer software application; and an expression evaluator that employs <u>a display proxy</u> associated with <u>an object of the computer software application</u> to present debug information associated with <u>the object</u> to a developer.	Claim1: A <u>attributed debugging</u> comprising: a debugger that facilitates debugging of a computer software application; and an expression evaluator that employs <u>an attribute</u> associated <u>with the computer software application</u> to present debug information associated with <u>the computer software application</u> to a developer.
Claim 2: The system of claim 1, the expression evaluator evaluates an expression associated with a particular programming language.	Claim 2: The system of claim 1, the expression evaluator evaluates an expression associated with a particular programming language.
Claim 3: The system of claim 2, the programming Language comprising at least one of C#, J# and Visual Basic.Net.	Claim 3: The System of claim 2, the programming Language comprising at least one of C#, J# and Visual Basic.Net.
Claim 4: The system of claim 2, comprising a plurality of expression evaluators, each expression evaluator associated with a particular programming language.	Claim 4: The system of claim 2, comprising a plurality of expression evaluators, each expression evaluator associated with a particular programming language.
Claim 25: A computer readable medium storing computer executable components of an attributed debugging system comprising: a debugger component that facilitates debugging of a computer software application; and, an expression evaluator component that employs <u>a display proxy</u> associated with <u>an object of the computer software application</u> to present debug information associated with <u>the object</u> to a developer.	Claim 21: A computer readable medium storing computer executable components of an attributed debugging system comprising: a debugger component that facilitates debugging of a computer software application; and, an expression evaluator component that employs <u>an attribute</u> associated with <u>the computer software application</u> to present debug information associated with <u>the computer software application</u> to a developer.

Based on the comparison table above, which highlight the differences by

underlining words indicates as following:

As to claim 1 and 25 (of the current application) compares to claim 1 and 21(of the co-pending application) recite the terms:

"a display proxy" and "an attribute" are pretty much similar because " an attribute" have already included " an object" for displaying "a proxy" of the "computer software application". –*See "attribute", page 41 of Microsoft Computer Dictionary Fifth Edition.*

Therefore, claims 1-4 and 25 of the current application are anticipated by the co-pending application's claims 1-4 and 21 respectively. Hence, the claims 1-4 and 25 of the current application are not patentably distinct from the claims 1-4 and 21 of the co-pending application and as such are unpatentable for obvious-type double patenting. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9.   Claims 1, 2, 4, 6-9, 11, 12, 18-26 are rejected under 35U.S.C. 102(e) as being anticipated by Bates et al., (U.S. Patent No. 6,961,924 B2 – hereinafter Bates).

As per claims 1 and 25, Bates discloses an attributes debugging system comprising:

a debugger that facilitates debugging of a computer software application (i.e., debugger 123, Fig. 1, see col. 5: 66-67 and related text); and

an expression evaluator (i.e., Expression Evaluator 126, Fig. 1, see col. 6: 55-67 and col.7: 1-7 and related text) that employs a display proxy associated with an object of the computer software application to present debug information associated with the object to a developer(e.g., the debugger 123 determines whether any attributes are set for the variable and determines whether the variable value is associated with a fields of a recode, that is the debugger determines whether a field is to be displays see step 614 and 618, Fig. 6, col. 11: 32-50).

Further regarding to claim 25, Bates discloses computer readable medium (e.g., CD-ROM disk see col. 3: 6-12) storing computer executable components of an attributes debugging system regarding to claim 1.

As to claim 2, Bates discloses the expression evaluator evaluates an expression associated with a particular programming language (e.g., highlighting language keyword and special program construct such as labels see col. 13: 1-20).

As to claim 4, Bates discloses the expression evaluator comprises a plurality of expression evaluator, each expression evaluator associated with a particular programming language (e.g., highlighting language keyword and special program construct such as labels see col. 13: 1-20).

As to claim 6, Bates discloses the expression evaluator creating an instance of the display proxy in a debuggee associated with the computer software application (e.g., Panel 702, Fig. 7, displays a source code 118, and Panel 704, Fig. 7, provides well-known debugging features see col.7: 33-51).

As to claim 7, Bates discloses the display proxy implemented as a private nested class within the object (e.g., Panel 704includes three tabs, which provide, in part, well-known debugging features such as providing variable names and values and program monitors. Illustratively, a "Locals" tab 706 is selected and displays a Name column and Value column see col. 7: 38-51).

As to claim 8, Bates discloses the display proxy having access to private implementation details of the object (e.g., on line 29 in the source code panel 702, the variable "stuff" has an associated comment "stuff is important to output" see col. 7: 38-51).

As to claim 9, Bates discloses further comprising an attribute cache directory that stores an attribute associated with the display proxy, the expression evaluator employing the stored attribute to present debug information (e.g., a database 152, which used by database management system 150, may contains any variety of repositories providing external data source for external comments and other variable information see col. 5: 1-6).

As to claim 11, Bates discloses the expression evaluator further employs and attribute associated with the computer software applications to present debug information associated with the computer software application to the developer (e.g., the

debugger 123 determines whether any attributes are set for the variable and determines whether the variable value is associated with a fields of a record, that is the debugger determines whether a field is to be displays see step 614 and 618, Fig. 6, col. 11: 32-50).

As to claim 12, Bates discloses the attribute employed to determine at least one of how and whether a type or member displayed (e.g., the debugger 123 determines whether any attributes are set for the variable and determines whether the variable value is associated with a fields of a record, that is the debugger determines whether a field is to be displays see step 614 and 618, Fig. 6, col. 11: 32-50).

As to claim 18, Bates discloses the attribute employed to what is displayed for a class and/or field (e.g., the debugger 123 determines whether any attributes are set for the variable and determines whether the variable value is associated with a fields of a record, that is the debugger determines whether a field is to be displays see step 614 and 618, Fig. 6, col. 11: 32-50; also see attributes are set in the fields 312-322, Fig. 3 and associated text).

As to claim 19, Bates discloses an argument to the attribute comprising a string that is displayed in a value column for an instance of the class and/or field (e.g., attribute indicator such as G, S, I, R, C, P for each set attribute is associated with the variable value see step 616, col. 11: 34-37).

As to claim 20, Bates discloses the argument associated with one of field, a property and a method (e.g., at step 618, the debugger 123 determines whether the variable value is associated with a field of a record see col. 11: 41-42).

As per claims 21 and 26, Bates discloses a method facilitating attributed debugging comprising:

receiving a request to examine an object (e.g., an event, at step 604, may be in response to user...entering a request for a variable value in a command line, etc. see col. 11: 16-22);

determining whether a display proxy attribute exists for the object (e.g., at step the debugger 123 determines whether any attributes are set for the variable see col. 11: 32-33);

creating a display proxy for the object (e.g., the attributes are set in the fields 312-322 see col. 11: 33-34) ; and

examining the display proxy (see step 616 and 618 col. 11: 34-50).

Further regarding to claim 26, Bates discloses an attributes debugging system (e.g., computer 110, Fig. 1 see col. 4: 28-40 and related text) comprising: means for implementing the method regarding to claim 21.

As to claim 22, Bates discloses further comprising providing information associated with the display proxy in response to the request to examine the object (e.g., the debugger 123 determines whether any attributes are set for the variable and determines whether the variable value is associated with a fields of a recode, that is the debugger determines whether a field is to be displays see step 614 and 618, Fig. 6, col. 11: 32-50).

As to claim 23, Bates discloses a computer readable medium (e.g., CD-ROM

disk see col. 3: 6-12) having stored thereon computer executable instructions for

carrying out the method of claim 21.

As to claim 24, Bates discloses a data packet transmitted between two or more

computer components that facilitates debugging, the data packet comprising:

a field that stores a display proxy for an object, the display proxy facilitating

debugging of the object (fields 312-322 are flags whose value describes an attribute of

the variable "stuff" see col. 8: 7-11).

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

11.   Claim 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bates et

al., (U.S. Patent No. 6,961,924 B2 – hereinafter Bates), in view of Chan et al., (U.S.

Patent No. 6,948,002 B2– hereinafter Chan).

As to claim 5, it is noted that Bates does not explicitly disclose the object

comprising a hash table. However, Chan, in an analogous art, teaches in execution, the

controller command builds response properties into a response properties object. The

response properties object includes hash table, which includes a view name. Referring

to Fig. 8, the response properties object comprises a hash table 800 containing the view

information, the ID information, the item and the results, which are added to the

response properties object. Data in the hash table 800 is formatted to correspond to the

correct devices type and controller (see Chan, col.7: 45-51, col. 11: 4-10, and hash

table 800, Fig. 8).

It would have been obvious to one ordinary skill in the art at the time the

invention was made to include the hash table 800 of Chan with object of the debugger

123 of Bates as a way to an efficient way for the debugger 123 to store and look up

objects using view name – key values: emphasis added – (see Chan, col.7: 45-51, col.

11: 4-10, and hash table 800, Fig. 8).

12.   Claim 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bates

et al., (U.S. Patent No. 6,961,924 B2 – hereinafter Bates), in view of Bates et al., (U.S.

Patent No. 7,251,808 B2– hereinafter Bates '808)

As to claim 10, it is noted that Bates does not explicitly disclose employed to

editing of a value associated with the object. However, Bates '808, in an analogous art,

teaches graphical debugging with loadmap display manager and custom recode display

manager displaying user selected customized records from bound program objects (see

col. 1: 60-67, col. 2: 2-37, Figs. 11 & 12, col. 7: 51-67and col. 9: 1-13).

It would have been obvious to one ordinary skill in the art at the time the

invention was made to include the graphical enhance interface including user specifying

selection options of Bates '808 with debugger 123 of Bates as a way to provide custom

record displays, where only user selected fields of record or variable are displays (see

Bates '808, col. 1: 53-67 and col. 2: 1-10).

13.   Claims 3 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Bates et al., (hereinafter, "Bates"), (U.S. Patent No. 6,961,924 B2), in view of

Dandoy (U. S. Patent Application Publication 2004/0230954 A1).

As to claim 3, it is noted that Bates does not specifically discloses the

programming language comprising at least one of C#, J# and Visual Basic. Net.

However, Dandoy, in analogous art, teaches a system for debugging a software

application that displays the contents and properties objects and determine what events

are emitted by objects (see Dandoy [0046] and [0048]).

It would have been obvious to one ordinary skill in the art at the time invention

was made to use the interface debugger of Dandoy with the debugger 123 of Bates due

to the Dandoy's debugger implementation in various programming languages and tools

such as JAVA, HTML, Java Server Pages (JSP), Pascal, C#, C++, C, CGI, Perl, APIs,

SDKs, assembly, firmware, microcode, and/or other languages and tools (see Dandoy,

page 6, [0048] and [0049]).

As to claim 13, it is noted that Bates does not explicitly teach the attribute

employing an enumeration. However, Dandoy, in an analogous art, teaches how the

debug agent is configured to collect execution data relating to the graphical user

interface, which includes object properties, events, and runtime states (see [0018]).

It would have been obvious to one having ordinary skill in the art at the time

invention was made to modify the debugger 123 of Bates with debugging collecting

agent of Dandoy for saving programmer time in debugging system with more efficient

way of debugging without modifying the source code as once supplied by Dandoy (see

Dandoy, page 1, [0001] and [0002]).

As to claim 14, Dandoy discloses one enumeration value associated with an

indication that the type or member should not be displayed to the developer (e.g., the

debug agent can determine the current stat of the selected window and it change its

properties: hidden see [0025]).

As to claim 15, Dandoy further discloses one enumeration value associated with

an indication that if a type is hierarchical, it should be expanded by default (e.g., at any

points during debugging, a hierarchy objects within the interface can be determined and

displayed, the hierarchy can be displayed automatically see [0046]).

As to claim 16, Dandoy also discloses one enumeration value associated with an

indication that a type should not be expanded by default (e.g., debugging requests may

include a request to monitor events associated with an object ... or request to hide or

show and object see [0024]).

As to claim 17, Dandoy further discloses one enumeration value associated with

an indication that a target element itself should not be shown, but should instead be

automatically expanded to have it s member(s) displayed ((e.g., at any points during

debugging, a hierarchy objects within the interface can be determined and displayed,

the hierarchy can be displayed automatically see [0046]).

Conclusion

14.   The prior art made of record and not relied upon is considered pertinent to the
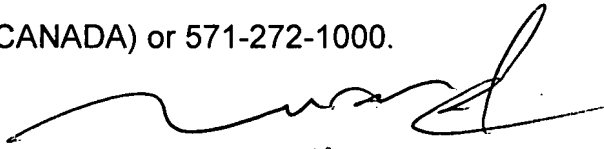
applicant disclosure.

You et al. (US 5,815653) is cited to teach debugging system with portable debug environment –independent client and non-portable platform-specific server.

Caspole et al., (US 2003/0204838 A1) is cited to teach debugging platform-independent software applications and related code components.

15.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Lee whose telephone number is (571) 270-1648. The examiner can normally be reached on M-F (9am-6: 30pm) Est.:

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TUAN DAM
SUPERVISORY PATENT EXAMINER

M.L.
September 18, 2007